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Amiga® UNIX®
System V Release 4

Installing Amiga UNIX

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Preface

This manual is written for people who want to install or upgrade Amiga UNIX on an A3000UX. We assume that you have a computer, but no advanced computer knowledge. Step by step instructions are provided, as well as a quick overview for people who have experience with the Amiga 3000.

Credits

Numerous people worked together to bring you Amiga UNIX.

Thanks to David Ballman, Mike Ditto, Keith Gabryelski, and Rich Skrenta for the software and Richard Buck, Kendall Robinson, and Carol Wahl for the documentation. Also, thanks to Don Bein, Jan Carlson, Henry Cejtin, Jack Gebhart, Mike Hall, Rich Miner, Dave Pelland, Jeff Porter, Erich Richeit, Ed Rupp, Nick Troiani, and Rico Tudor for their efforts.

A special thanks to everyone at AT&T for working with us so closely and for always being fun to work with.

A final thanks to Henri Rubin for his constant support.

Johann George
November 1990

This manual was written and produced using Amiga UNIX and the X Window System. 11/90

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Using this manual

Using this manual

Who should read this manual

This manual is designed for people who are using an Amiga 3000UX machine for the first time. It contains instructions for:

- connecting the standard hardware components
- using the installation script to install Amiga UNIX
- configuring Amiga UNIX for the first time
- installing optional files that are included on the installation tape
- installing expansion cards (for example, Ethernet or video boards)

Follow the instructions

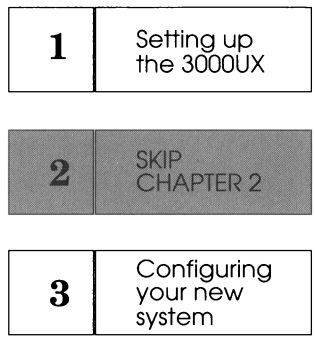
As you read the instructions in this manual, perform the steps on your machine. If you have any questions about the steps, contact your system administrator or the dealer from whom you purchased your machine.

How should you read this manual?

You don't have to read every chapter in this manual. The chapters you need to read, and the order in which you need to read them, depends upon whether Amiga UNIX is already installed on your machine and whether you are installing expansion cards. Use the reader path on the following page to decide where to start reading. If you are an experienced Amiga or UNIX user, you may be able to assemble your computer and configure UNIX without this manual.

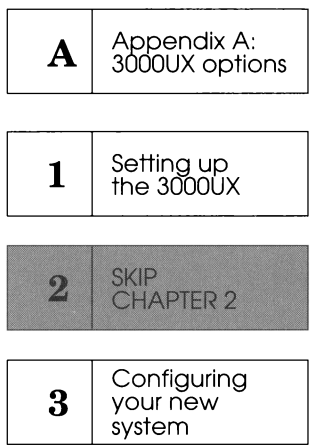
Normal reader path

Standard Installation

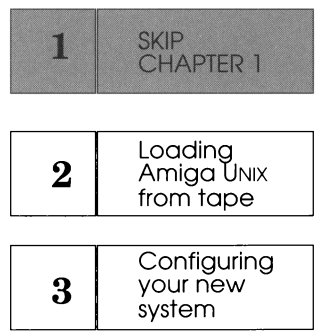


Reader path for special cases

Expansion boards



Reinstalling Amiga UNIX



Optional files

You can add several optional files to your system along with Amiga UNIX:

- X Window System development tools
- AT&T System V Release 4.0 documentation
- source code for public domain programs

Read chapter 4: *Installing Optional Files* for instructions.

Other helpful documentation

This manual describes installation and initial setup. It does not try to teach you UNIX. If you would like to learn how to use UNIX, refer to:

Learning Amiga UNIX	a basic Amiga UNIX tutorial including hands-on instructions and examples
Using Amiga UNIX	an introductory reference guide to Amiga UNIX
online man pages	online documentation to commands provided with UNIX
AT&T's documentation	detailed manuals covering all aspects of UNIX

Four typographic Conventions

We use four specific typographic conventions in this manual to highlight concepts.

Convention	What does it mean?
bold words	a UNIX command or command line: **ls -lt** **man ls**
italics	a value to be substituted, frequently as part of a command line: *filename* **cat *filename*** also used for chapter and manual titles *Using Amiga UNIX* *Learning the Basics*
uppercase	a key on the keyboard, or a combination of keys if connected by a hyphen: RETURN CTRL-C
typewriter font	text that appears on your screen either as you type it or in response to your commands; values to be substituted by you are in italics

Using the RETURN key

We do not list the RETURN key each time you should press it; we assume that you either know or will quickly learn to end your commands with a RETURN.

Setting up the 3000UX

Amiga 3000UX standard components

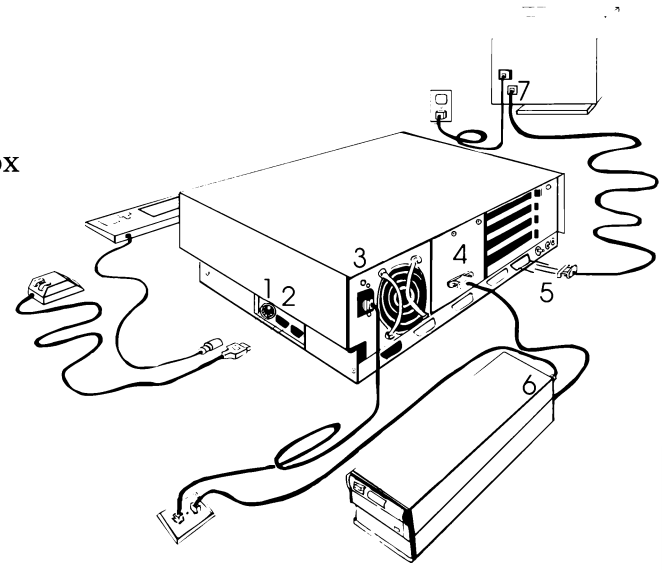
- 3000UX system box
- 3 Amiga UNIX manuals
  - Installing Amiga UNIX
  - Learning Amiga UNIX
  - Using Amiga UNIX
- 2 Amiga UNIX installation disks and 1 tape
- AmigaDOS manual and disks
- Keyboard
- Mouse

Connections

1 keyboard to side of box
2 mouse to side of box

3 powercord to back of box
4 tape to back of box
5 monitor to back of box

6 powercord to tape
7 powercord to monitor



Setting up the 3000UX

Why should you read this chapter?

This chapter describes the standard 3000UX configuration and shows you how to assemble the system components. Read this chapter to learn the different parts of your 3000UX.

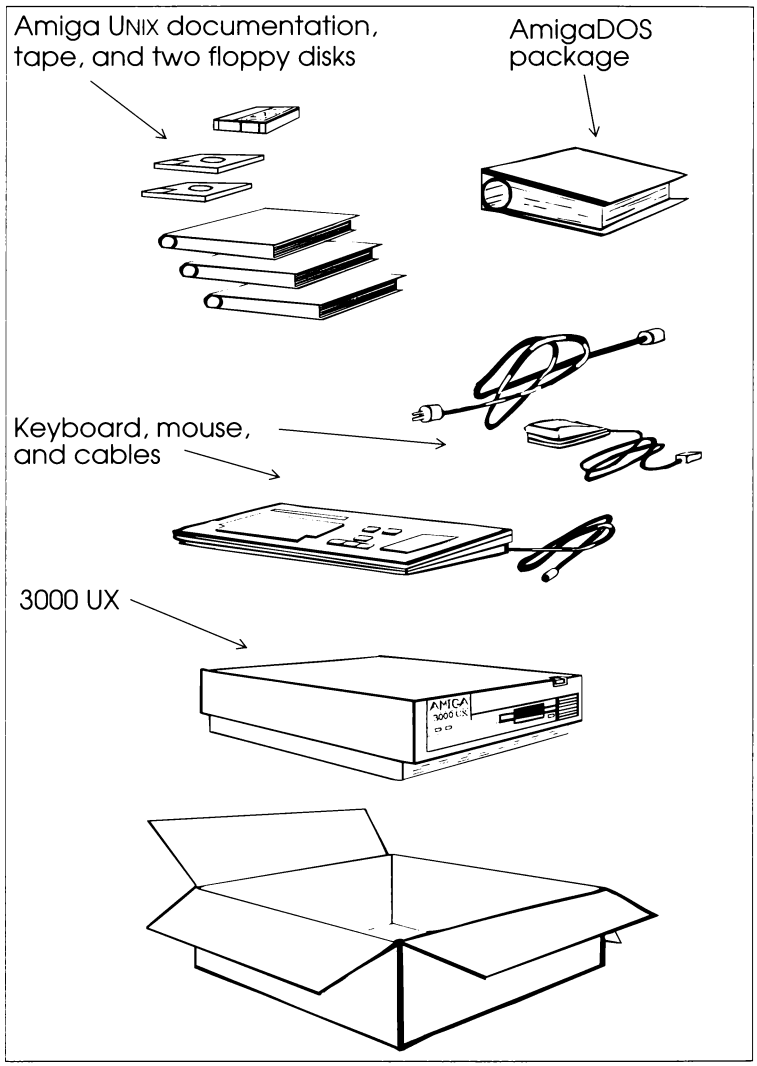
If you are already familiar with Amiga hardware, or have already assembled your system, skip to the next chapter.

Read this chapter only to assemble your Amiga hardware. If your Amiga is already working, skip to the next chapter.

Unpacking your system

Standard components

The following figure shows the standard components (hardware, software, and manuals) that you receive with your 3000UX.



Additional components

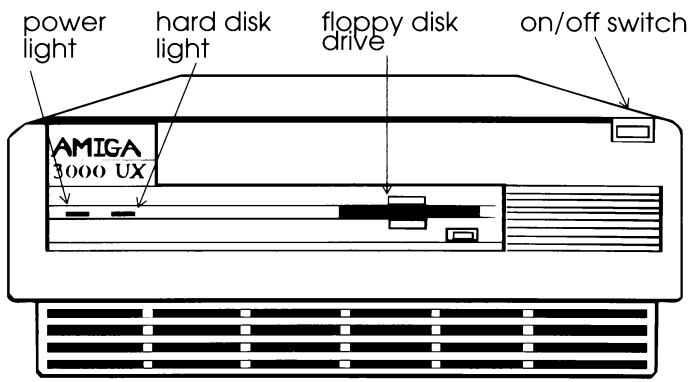
Your monitor comes in a separate box, with a power cord and a cable to connect it to the 3000UX.

You may also have other components, such as an external tape drive, network board, serial board, bridge board, cables, or adapters. Refer to *Appendix A: 3000UX options* for instructions on opening your system box and installing expansion options.

You need a tape to install Amiga UNIX. However, the 3000UX comes with Amiga UNIX pre-installed on the hard disk; you only need the tape drive if you want to reinstall Amiga UNIX from the installation tape.

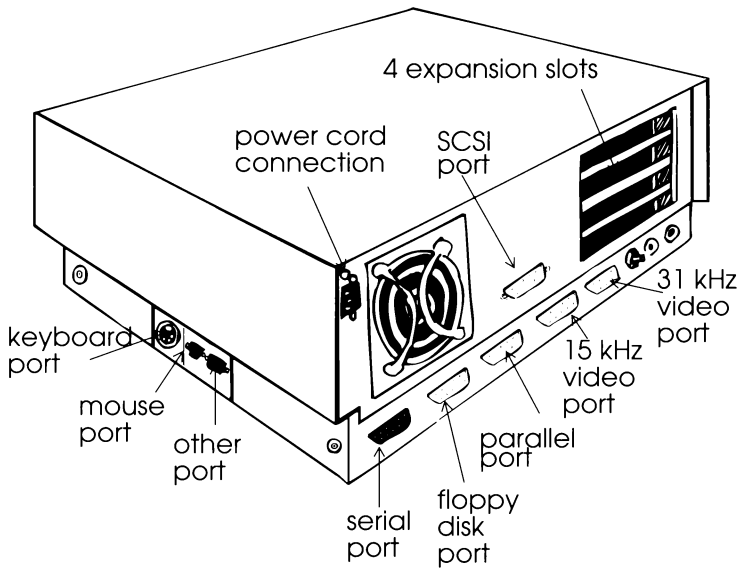
What does the 3000UX look like?

Front of system box



Front view of system box

Back and side of the system box



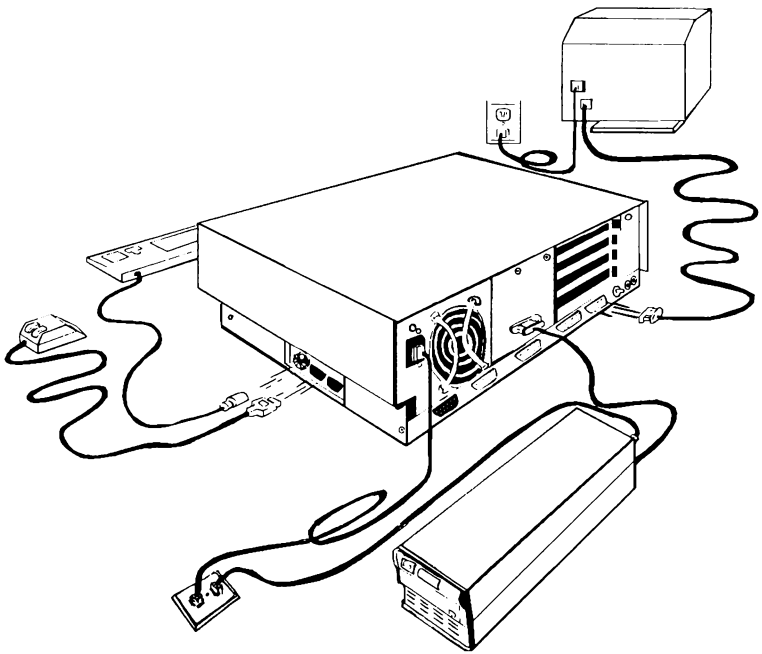
Back view of 3000UX system box

Standard ports

Each port is used to connect a different type of device; the purpose of each port is listed below.

Port	What is it for?
Serial	connect a serial terminal, modem, or printer
Floppy disk	connect an external floppy disk drive
SCSI	connect one or more external disk or tape drives
Parallel	attach a parallel printer
Video (15kHz)	connect an A2024 monitor
Video (31kHz)	connect a Commodore 1950, multisync, or VGA monitor
Keyboard port	connect the keyboard
Mouse port	connect mouse
Other port	connect another mouse or joystick

Connecting the system components



connecting the 3000UX components

Note about expansion options

You should install any optional boards and adjust them before connecting the system components. Refer to *Appendix A: 3000UX options* for information about opening the system box. Make sure the power is off before connecting the system components.

You need a tape drive during installation

You need an optional tape drive to read the Amiga UNIX installation tape. The external tape drive comes with a SCSI cable and a power cord.

Connect tape only to SCSI port

Caution: Make sure you plug the cable into the SCSI port; you can damage your machine if you connect it to the wrong port.

Turn tape drive on before computer

NOTE: The tape drive must be on whenever you turn the computer on. If the tape drive is attached, but not turned on, your hard disk will not work.

Connect monitor to the appropriate port

You can connect the following monitors to one of the two standard Amiga video ports.

- Amiga 2024 high resolution monochrome
- Amiga 1950 high resolution color
- VGA color monitors
- other Amiga monitors

Connect an A2024 monitor to the 15 kHz video port, or one of the other standard monitors to the 31 kHz port.

If you have a different type of monitor, you probably need a video board, which you install in your system and then connect to the monitor.

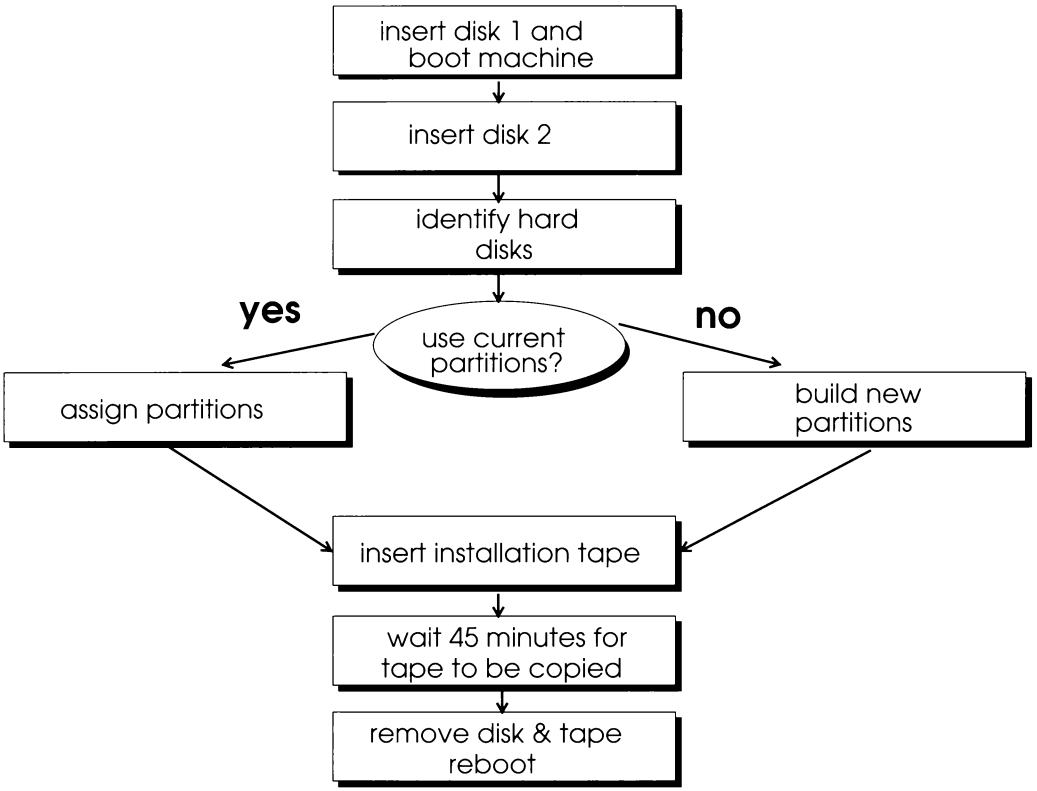
Loading Amiga UNIX from tape

When should you load Amiga UNIX from tape?

There are two reasons to reinstall Amiga UNIX from tape

- you are upgrading with a different version
- you accidentally damaged the UNIX operating system

Flow chart for loading Amiga UNIX



Loading Amiga UNIX from tape

Why should you read this chapter?

This chapter tells you how to install Amiga UNIX on your machine. If Amiga UNIX is pre-installed, skip to the next chapter.

Normally, Amiga UNIX machines already have UNIX installed on their hard disks. There are two reasons you might want to reinstall Amiga UNIX from the tape:

- you are installing an Amiga UNIX upgrade
- you accidentally damaged the UNIX operating system and you need to reinstall

Reinstalling Amiga UNIX

Backup your important files to floppy disk or tape before reinstalling Amiga UNIX. See *Using Amiga UNIX* for information about backing up files.

NOTE: The installation process completely clears the hard disk.

Amiga UNIX is already installed on the hard disk

If Amiga UNIX is already installed on your hard disk and you are starting the machine for the first time, skip ahead to page 19.

The installation script loads Amiga UNIX on your hard disk. The installation script asks you several questions and then customizes certain files and devices based on your answers.

The instructions that appear on the next few pages are here to help you answer the installation script questions.

Starting the system

Basic steps for loading Amiga UNIX from tape

These are the basic steps for loading Amiga UNIX from tape:

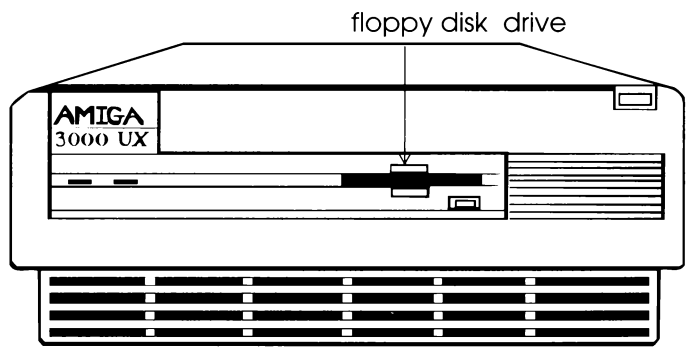
- Start the installation by inserting floppy disk 1.
- Take out floppy disk 1 and insert floppy disk 2.
- Answer questions about your hard disks and partitions.
- Load the installation tape and wait about 45 minutes for your file systems to be created.
- Remove the tape and floppy disk 2, then reboot the system.
- Answer the configuration questions, as described in the next chapter.

Turn on tape drive

Start the tape drive. It must be on before you start the A3000UX.

Insert disk 1 (BOOT)

Put the floppy disk labeled disk 1 (BOOT) in the floppy disk drive.



floppy disk drive on 3000UX

Start the system

Start the system by turning it on. If the system is already on, you can restart it by holding down the CTRL key and pressing both Amiga keys (the keys labeled A on either side of the space bar).

After about one minute, the following message appears on your screen.

```
fpu present

Insert ROOT filesystem floppy and press RETURN
```

Insert disk 2 (ROOT)

Remove floppy disk 1 and replace it with the floppy disk labeled disk 2 (ROOT).

Press RETURN.

During the next minute or two, several messages appear.

```
Booting
UNIX (R) System V Release 4.0 AT&T Amiga Version
Total real memory = memory on board
Available memory = memory left after kernel

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Copyright 1990 Commodore-Amiga, Inc.

Amiga UNIX install script
```

Preparing your hard disk

Hard disks on your machine

The system displays a list of any installed or attached hard disk drives with their sizes (in megabytes).

```
Hard disks attached to this system:

SCSI id 6                    nnn megabytes
SCSI id 1                    nnn megabytes
```

Normally, you only have one hard disk on a machine. However, if you have attached additional disks, the system asks the following question.

Identify device for installation

```
What is the SCSI id of the disk you want to
install?
```

Answer this question by specifying the number of the hard disk.

Each SCSI device must have a unique SCSI "address". The table below lists the addresses already in use on a standard A3000UX. Amiga UNIX is normally installed on SCSI 6, which has at least 80 megabytes.

Address	Device that uses it
6	internal hard disk
4	internal tape drive
7	SCSI disk controller

Decide if you want to use the current partitions

Partitions divide the disk into separate logical areas. These areas are completely self-contained, even though they are on the same hard disk. There are many reasons for dividing a disk, such as increasing hard disk performance, limiting users from consuming too much disk space, and confining damage that could result from a runaway program.

Amiga UNIX needs a minimum of three partitions to function properly: boot, root, and swap. The root partition should be at least 68 MB, the swap at least 10, and the root only 2.

Existing partitions are listed

The system displays all partitions on the selected disk and the number of megabytes assigned to each.

```
A partition table exists on this disk:

#   Name            Start       Length      Size

1.  Unix_Root        xx          xx          xx
2.  Unix_Swap        xx          xx          xx
3.  Unix_Boot        xx          xx          xx
4.  Other            xx          xx          xx
Do you want to use this partition table [y]
```

If you want to create your own custom partitons, skip ahead to page 15, *Build custom partitions*.

If you want to use the current partitions, answer the questions on the next page.

Assign existing partitions

Assign partitions

```
Which partition is for the root file space?  _
Which partition is for the swap space?  _
Which partition is for the UNIX bootstrap?  _
```

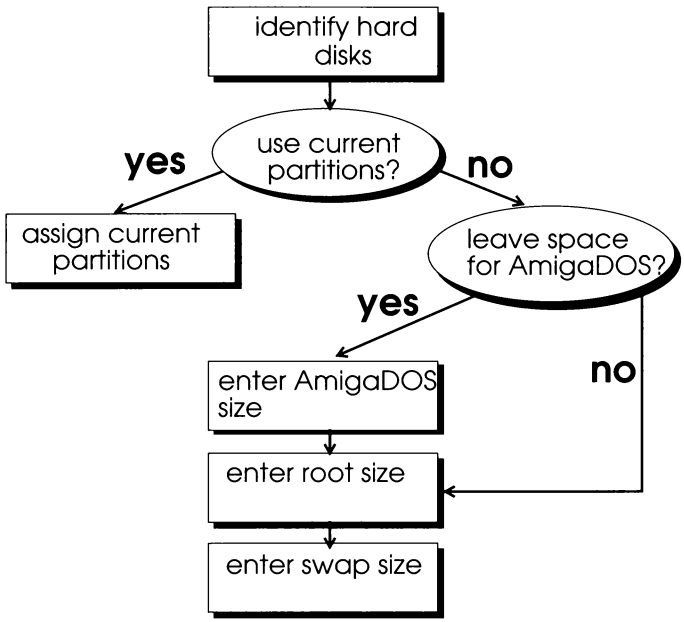
Enter the numbers of the root, swap, and boot partitions, as listed at the top of your screen. If you do not see these questions, your disk does not have valid partitions on it, and you must create new ones.

Once your partitions have been assigned, skip to *Copy the installation tape* on page 19.

Build custom partitions

Build custom disk partitions

If you answered no to the "Do you want to use these partitions?" question, you must build your partitions.



Steps for building custom partitions

Minimum size for partitions

Here are the minimum sizes for each partition:

Partition	Name	Size
1	root	68 MB
2	swap	10 MB
3	boot	2 MB
4	AmigaDOS (optional)	7 MB (or none)

Script displays hard disk and boot partition

The script tells you how much space is on your hard disk and how much space is reserved for your boot partition.

```
Your hard disk is nnn MB.
2 megabytes are reserved for your boot partition.
```

The script then helps you build partitions by asking the following questions.

Decide whether to build an AmigaDOS partition

```
Do you want to set aside space for AmigaDOS [n]?
```

The default answer to this question is no if you have a 100 MB disk, yes if you have a 200 MB disk. If you have the space, and you think you might use AmigaDOS in the future, you should create a partition now. It is much more difficult to add a partition later, after installing Amiga UNIX.

Assign space to the AmigaDOS partition

If you answer yes to add an AmigaDOS partition, answer the following question:

```
How much space do you want to set aside for
AmigaDOS [10]
```

We recommend 10 MB as the minimum size for an AmigaDOS partition.

Assign space to the UNIX partitions

Now assign space to your UNIX partitions.

```
Enter root space size, in megabytes:  [88]
Enter swap space size, in megabytes:  [10]
```

Enter the amount of space you want to use for your root files and swap area. The default size for the root file system is all the space remaining on your hard disk, less 10 MB for swap. You can change the default values that the install program recommends for your partitions. Remember that boot must be 2 MB and swap must be at least 10 MB. The two tables on the next page list ideal partitions for a 100 MB disk and a 200 MB disk.

The following table lists the ideal partitions for a 200 MB hard disk.

Partitions for a 200 MB hard disk

Partition	Name	Size
1	root	150 MB
2	swap	28 MB
3	boot	2 MB
4	AmigaDOS	20 MB

The following table lists the ideal partitions for a 100 MB hard disk.

Partitions for a 100 MB hard disk

Partition	Name	Size
1	root	88 MB
2	swap	10 MB
3	boot	2 MB

The script displays your new partitions.

Script displays new partitions

```
#   Name          Start      Length      Size

1.  Unix_Root      xxxx        xxx      xx MB
2.  Unix_Swap      xxxx        xxx      xx MB
3.  Unix_Boot      xxxx        xxx      xx MB
4.  Other          xxxx        xxx      xx MB
```

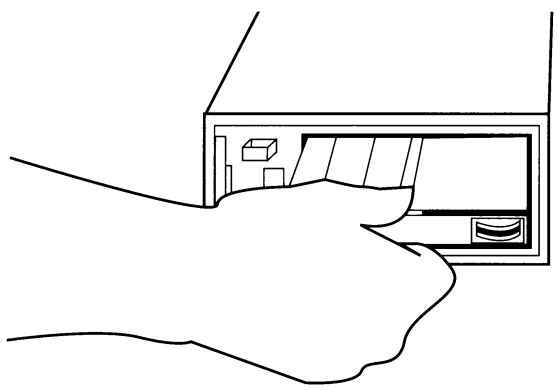
Copy installation tape

Insert the installation tape

After you answer the questions about your partitions, the script prompts you to insert the tape.

```
Insert UNIX installation tape and press RETURN:
```

Put the installation tape in the tape drive.



- Push the little button at the left of the tape drive to open the door.
- Slide the tape in with the exposed tape edge towards the left and the metal bottom facing down.
- Close the tape drive door. Press the ridged area next to the button to close the door completely.
- Press RETURN when ready to continue.

The following message appears on your screen.

```
Making file systems.  This will take a few minutes.
```

After a few minutes, the following message appears on your screen.

Wait 45 minutes for Amiga UNIX to be installed

```
Reading tape.  This will take about 45 minutes.
```

The installation script builds the file system and copies all UNIX operating system files from the installation tape. You do not have to wait with the computer; you can leave and come back in an hour.

You can hear the tape drive moving during most of the installation.

Tape loaded onto hard disk

The installation script should finish by the end of an hour and display the following status message.

```
Done reading tape.

Installation complete.
Wait 10 seconds, remove floppy and tape, then
reboot.
```

Remove disk and tape; then restart

Remove the floppy disk and the tape, then restart by holding down the CTRL key and pressing both Amiga keys (the keys labeled A on either side of the space bar).

NOTE: As with any UNIX system, restarting a live system can force a complete file system check and repair, and may damage some active files and processes. Normally, never restart before running **shutdown**.

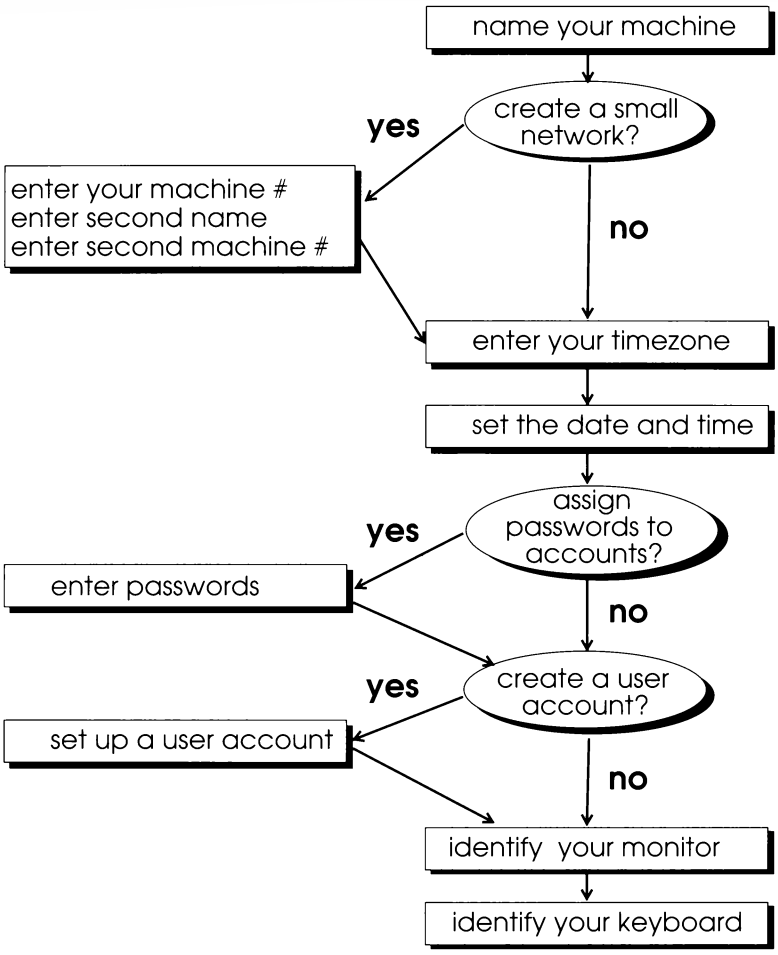
You have sucessfully loaded Amiga UNIX from tape. The next step is to answer a few more questions about your machine configuration. Go on to the next chapter, *Configuring your new system*, for help answering the last few questions.

Configuring your new system

When do you configure your new system?

Amiga UNIX comes with a program that helps you configure your machine. The configuration program runs automatically the first time you start your machine after unpacking it or after reinstalling from tape.

Flow chart for configuring Amiga UNIX



Configuring your new system

Why are you here?

You are here for one of two reasons:

- You just started your preinstalled machine for the first time
- You just installed Amiga UNIX from tape and restarted your machine

Most of the questions from here on are optional. You can safely answer no to any question. You can perform all of these configuration tasks by hand once UNIX is up and running. The script simply automates the process of some initial configuration steps. You may have to perform additional configuration later, depending on how you use your system.

System nodename

After you boot your computer for the first time, or reboot after installing Amiga UNIX, the installation script asks the following question.

```
What is the nodename of this machine? [localhost]
```

Enter the nodename of your machine or press RETURN to assign **localhost** as the default name. Use **localhost** only if you are not going to be part of a network.

A nodename identifies your machine for other users. The name you choose must begin with a letter, include only letters and numbers, and (if you connect to a network) must be unique for that network.

The script asks the following question.

Create a small network

Create a network hosts file?

```
Do you want to create a small network hosts file
with two addresses? [n]
```

Two entries in a hosts file let you either communicate with one other system, or connect to that system so you can take a copy of its larger hosts file.

If you don't want to create a small hosts file, press RETURN to continue.

If you want to create a small network, the system asks the following questions.

Create network

```
What is your machine number?
What is the second machine's nodename?
What is the second machine's number?
```

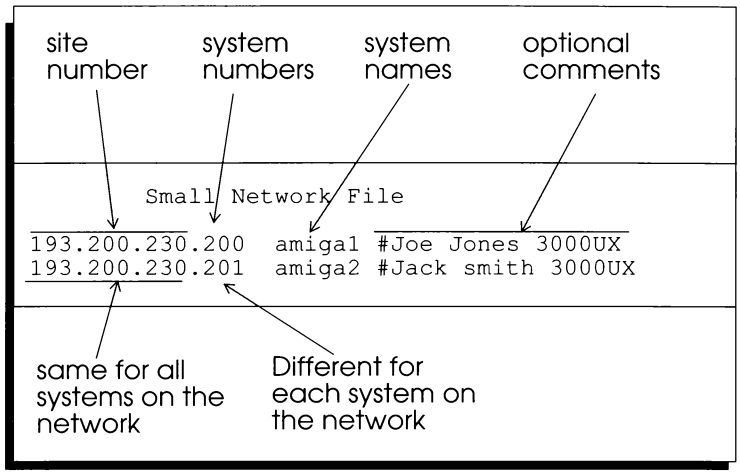
See network administrator

A machine number is used by the network to help you communicate with other users. If you are connecting to an existing network, ask your network administrator for the numbers. Your hosts file should contain the following information, depending on the type of network you use.

Network type	Contents of /etc/hosts
none	no /etc/hosts file
2 nodes	your system and address and remote system's name and address
larger network	take /etc/hosts file from another system on the network

System number format

If you don't have a network administrator, make sure you assign numbers using the following format:



Set the timezone

After you enter your system name and network addresses, set the timezone.

```
 1)Greenwich (GMT)
 2)Europe (MEZ)
 3)Atlantic (AST & ADT)
 4)Eastern (EST & EDT)
 5)Central (CST & CDT)
 6)Mountain (MST & MDT)
 7)Pacific (PST & PDT)
 8)Yukon (YST & YDT)
 9)Alaska (AST & ADT)
10)Bering (BST & BDT)
11)Hawaii (HST)
12)Other (nonstandard timezone)

What timezone are you in?
```

Choose a timezone

Enter the number that corresponds to your timezone.

The script then asks the following question.

Do you use Daylight Savings Time?

```
Is Daylight Savings Time used in this area?
```

Enter **y** for yes or **n** for no.

The system displays your timezone with the number of hours from Greenwich Mean time (EST5EDT means Eastern Standard Time, 5 hours ahead of Greenwich, and Eastern Daylight Time during part of the year).

Set the date and time

After you set your timezone, set the date and time.

Set the date

```
What is the current date? (mmddyy)
```

Enter the current date in the format, *mmddyy* (for example, 070190 is July 1, 1990). Do not include slashes or dashes between numbers.

Be sure each group has two characters. For example, if the month is January, enter 01 for the month, not just 1.

The script asks the following question.

Set the time

```
What is the current time? (hhmm)
```

Enter the current 24 hour time in the format *hhmm* (for example, 1330 is 1:30 pm). Remember to use four digits (0805 for 8:05 am). Do not include a colon (:) between units.

Assign passwords to accounts

After you set the date and time, the script lets you assign a system-wide password and create a new user account. You can choose to complete these tasks or answer **n** to skip these tasks.

The script asks the following question.

Assign password to system accounts and guest account?

```
Would you like to assign a password to all of the
system accounts? [y]

Would you like to assign a password to your guest
account? [y]
```

If you don't want to assign a password to your system accounts, press **n**.

Amiga UNIX comes with many standard system accounts already created; if you decide not to enter a password, these accounts will be unsecured and your system will be open to anyone.

To secure your accounts with a common system password, press RETURN.

The script asks you to enter the password and rekey it again for validation.

Create a user account

The script asks the following question.

```
Would you like to create a user account? [n]
```

If you don't want to create a user account at this time, press RETURN to continue.

Type **y** to create a user account.

Enter username and full name

```
Enter the username of the account:
Enter the full name of the owner of this account:
```

Enter the username and full name, using lowercase letters.

When the system accepts the information, it tells you the account has been created and asks for a password for this user.

Assign password to user account?

```
Would you like to assign a password to your user
account? [n]
```

If you don't want to assign a password to your user account, press RETURN to continue.

To secure your user account with a password, press **y**.

The script asks you to enter the password and rekey it again for validation.

Identify your monitor

What kind of monitor do you have?

The next configuration step identifies the type of monitor you have.

```
Are you using an A2024 or Moniterm high resolution
monitor?  [n]
```

If you have an Amiga 2024 or a Moniterm monitor, type **y**. If you have any other monitor, press RETURN.

Amiga UNIX does not care which specific monitor you have; it only needs to know if you have either of these two special monitors. The answer to this question helps the X Window System set the appropriate resolution for your monitor. These two monitors have a special Amiga high resolution mode that other monitors lack.

Identify your keyboard

What kind of keyboard do you have?

The last configuration step chooses your keyboard settings.

```
Available key mappings are:

ch1     d    e    gb   is   s    usa0     usa2
ch2     dk   f    i    n    usa  usa1

Which keyboard are you using? [usa]
```

Enter the type of keyboard you are using. The default value is **usa**. Other values are described in the following table.

List of keyboards

Option	Description
ch1, ch2	Switzerland
d	Germany
dk	Denmark
e	Spain
f	France
gb	Great Britian
i	Italy
is	Iceland
n	Norway
s	Sweden
usa	USA standard (default)
usa0, usa1	USA - special for AmigaDOS
usa2	Dvorak layout

Installation complete

You are finished configuring Amiga UNIX. After you answer the last configuration question, Amiga UNIX reboots and displays the login prompt.

If you have never used Amiga UNIX before, you have a few choices:

- log in by typing your login name and password
- complete the hands-on tutorials for beginners in *Learning Amiga UNIX*
- read *Using Amiga UNIX*, an introductory reference guide
- purchase advanced UNIX documentation from UNIX Press (Prentice-Hall) or any bookstore

The rest of this manual is optional. It shows you how to load some extra UNIX files and how to add expansion cards to your 3000UX. If you don't plan to do either of these tasks, you can stop right here.

Installing optional files

Optional files on the tape

X Window System development tools	(30 megabytes)
System V Release 4.0 documentation	(15 megabytes)
Source code for public domain programs	(15 megabytes)

Directories for files

X Window System development tools	/usr/src/X
System V Release 4.0 documentation	/usr/src/doc
Source code for public domain programs	/usr/public/src

Amiga UNIX commands for installing the files

Rewind the tape to beginning	**< /dev/rmt/4**
Advance to the next segment	**< /dev/rmt/4n**
Copy from tape	**cpio -imdcuv**
Uncompress each segment while copying	**uncompress**

Sample: **uncompress < /dev/rmt/4n | cpio -imdcuv**

Installing optional files

The tape that came with your Amiga computer is divided into four segments, containing various categories of UNIX software:

- Amiga UNIX and man pages
- X Window System development tools
- System V Release 4 documentation
- source code for public domain programs

The only segment installed automatically is Amiga UNIX. The other three are optional; you can install them if you need them and if you have the space. If you want to install all the optional files, you need about 60 extra megabytes of free disk space.

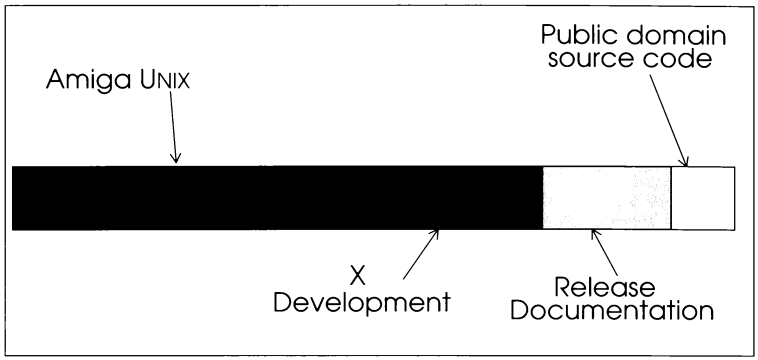
Size of files

File	Size in megabytes
Amiga UNIX	68
X Window System tools	30
Release documentation	15
Public domain source code	15

This section shows you how to copy any or all of the optional tape segments to your hard disk.

Load the optional files

To load a segment from tape, you have to move to that segment and copy it into a directory on your hard disk.



Move to the segment you want, then copy it

Login as root

Log in as root before you start loading the optional files.

Change directories

Change to the directory for the segment you want to install. The table on the following page lists the directories you should use.

Directories for the optional files

Tape segment	Directory name
X development	/usr/src/X
release documentation	/usr/src/doc
public domain source code	/usr/public/src

Put tape in the tape drive

Put the Amiga UNIX release tape in the tape drive.

Combine commands to find and copy a tape segment

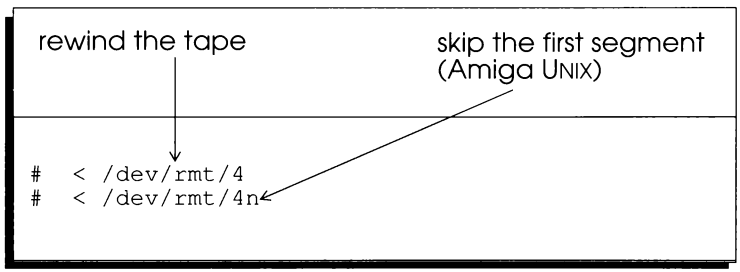
You combine three commands to install optional files:

- rewind to the beginning of the tape
- skip one or more tape segments
- copy a tape segment

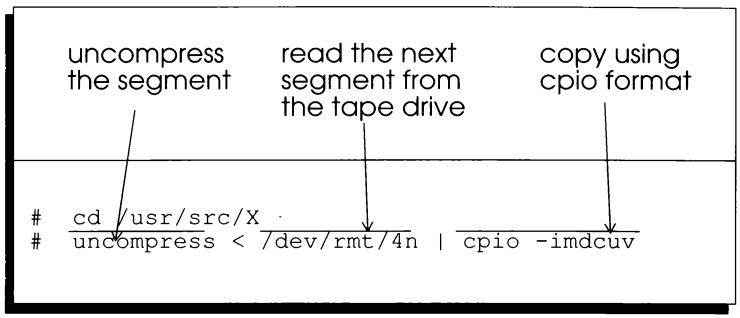
Move to the beginning of the first tape segment you want to load, then start copying. If you want to copy selected segments, move to the first one you want, copy it, then either copy or skip past each succeeding segment.

Rewind to the first optional file

Copy or skip the X segment



If you want to load this segment, **cd** into the /usr/src/X directory, then use the **cpio** command to copy the X Window System development files.



To skip the X Window system segment, simply repeat the command **< /dev/rmt/4n**. Each time you issue this command, the tape drive advances one segment.

Copy or skip the release documentation

If you want to install the standard UNIX System V Release 4.0 documentation, **cd** to /usr/src/doc and use the command **uncompress < /dev/rmt/4n | cpio -imdcuv**. To skip this segment, repeat the **< /dev/rmt/4n** command.

Copy or skip the public domain source

If you want to install the source code for various public domain programs and utilities, **cd** to /usr/public/src and use the command **uncompress < /dev/rmt/4n | cpio -imdcuv**.

Rewind tape

When you are finished, rewind the tape with the **< /dev/rmt/4** command and remove the installation tape.

Example - load the release documentation

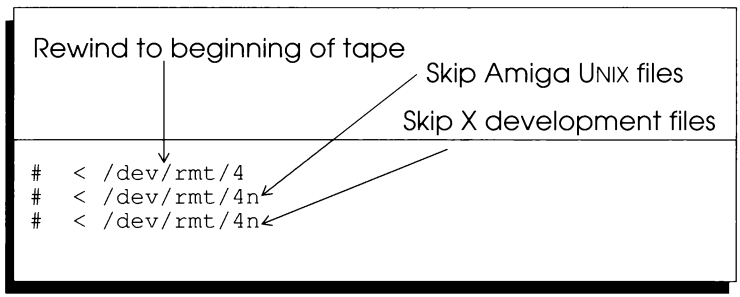
Change to the correct directory

This example shows you how to load only the release documentation. First, **cd** to the release documentation directory.

```
#  cd /usr/src/doc
```

Advance to the third segment

Use the following commands to rewind the tape and skip past the Amiga UNIX and X development segments.



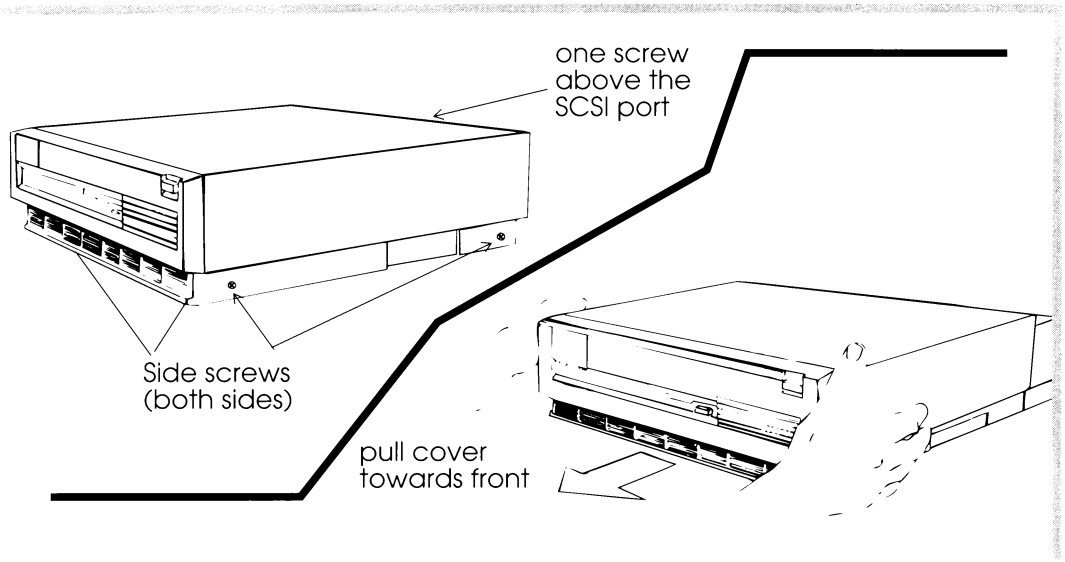
Load the files onto your hard disk

Copy the next segment.

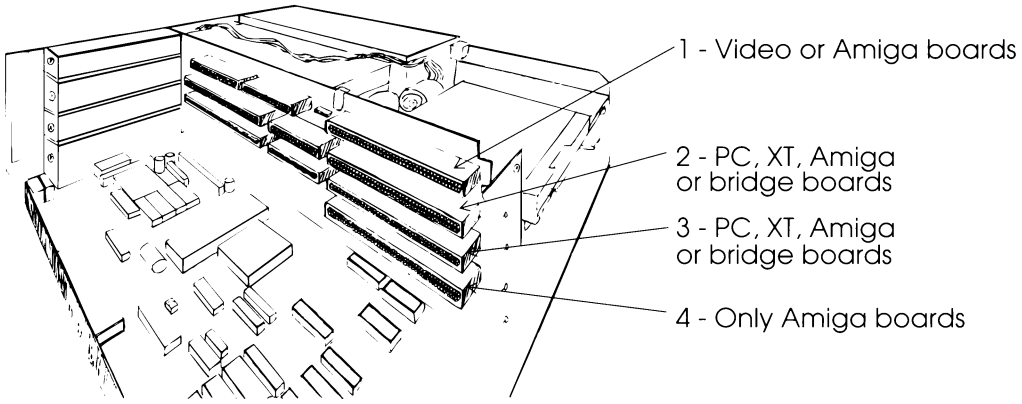
```
#  uncompress < /dev/rmt/4n | cpio -imdcuv
```

Appendix A: 3000UX options

Opening your system box



Installing optional cards



Appendix A: 3000UX options

Why should you read this chapter?

Your Amiga UNIX system includes a standard system box configuration. This configuration is described in Chapter 2, *Unpacking the 3000UX*. However, you may want to change the original configuration by adding optional boards to your system.

This appendix explains how to:

- open your system box
- install optional boards
- close your system box

NOTE: You must always disconnect the components and power cord before taking your system box apart.

Open your system box

Find a Phillips screwdriver

If you decide to install optional boards, you need to open your system box first. Before you begin, make sure you have a small Phillips screwdriver.

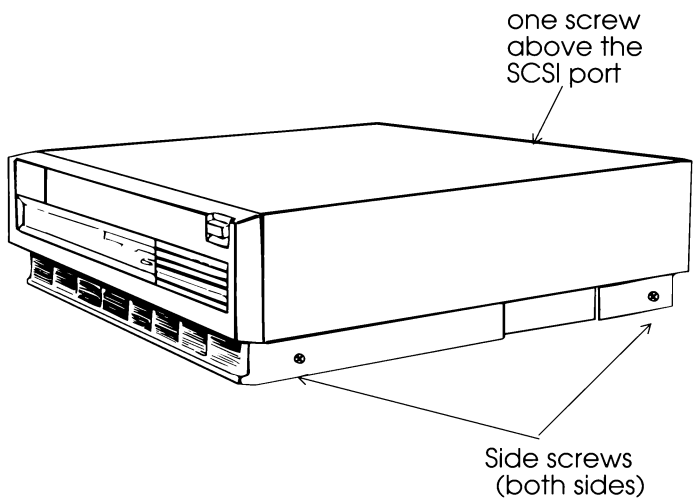
Disconnect system box from power

Unplug the system box and disconnect all components.

Remove the screws

Remove the four screws near the bottom on either side of the system box.

Remove the screw above the SCSI port on the back of the system box.



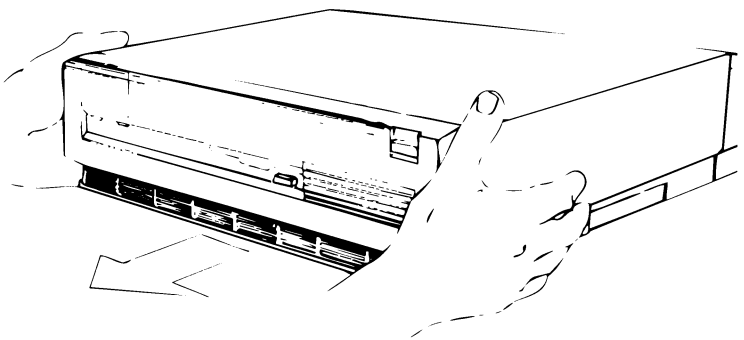
Screws on the sides and back of the 3000UX

Face the front of the machine

Turn the system box so that you are facing the front of the machine.

Remove the cover

Grasp the cover on both sides and slide it towards you.



Removing the cover from the 3000UX system box

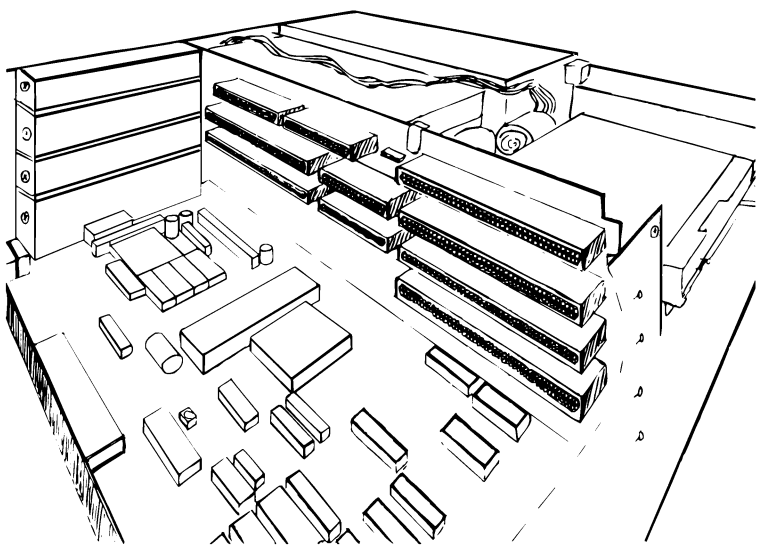
If the cover seems stuck, do not force it. If anything is caught, gently untangle it, and continue to slide the cover off.

Installing an expansion board

Expansion slots

Your Amiga 3000UX has four expansion slots. The following table lists some common types of expansion boards for the Amiga 3000UX and the slots you can use for them.

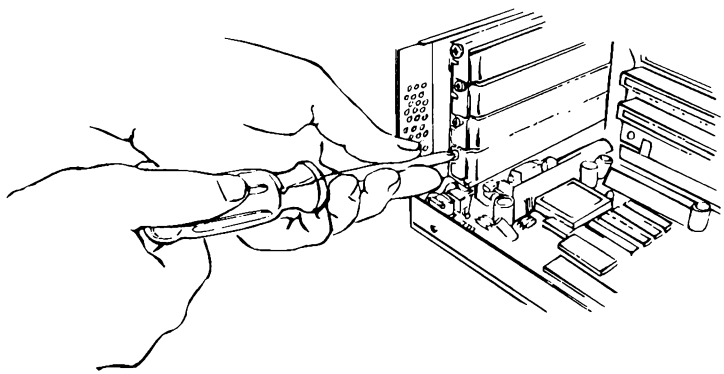
Slot	Cards you can put in it
1 (top slot)	video or Amiga boards
2	PC, AT, Amiga, or bridge boards
3	PC, AT, Amiga, or bridge boards
4 (bottom slot)	only Amiga boards



Expansion slots inside the 3000UX

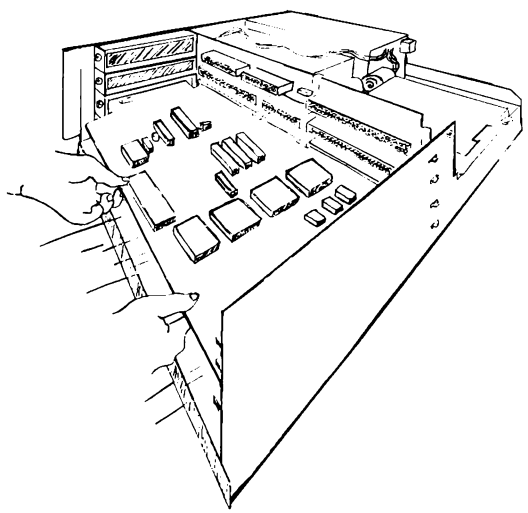
Unscrew the metal plate

Unscrew the metal dust plate for the slot you want to use. The metal plates cover the openings on the back of the machine



Put the board in the slot and screw it in place

Press the board into the slot. The board has its own dust plate. Attach the card by replacing the dust plate screw.



Close your system box

The board may be difficult to put in the expansion slot. First, make sure the cable connector (if the board has one) is through the opening in the back of the system box. Then line the card connectors up with the slot and press firmly. Keep pressing the card until it is all the way in the slot. The slots are tight to help hold the board and its connections firmly in place.

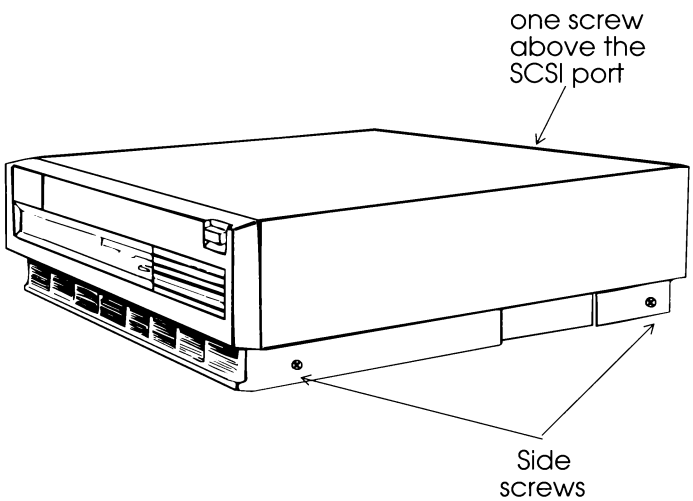
Replace cover

Turn the front of the system box toward you and carefully slide the cover back onto the box.

Replace the screws

Replace the screws.

There are two screws on either side of the box and one in the back.



Connect components

Read the *Assembling the 3000UX* chapter for instructions on attaching the standard system components (monitor, keyboard, mouse, and cords).

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3070 tape drive correction - tapeinit

Reading from large tapes may not work

Some Amiga tape drives reinitialize when you change tapes, and then cannot read past 78 MB. The enclosed diskette contains the **tapeinit** program, which initializes the drive to 120 MB format.

Tapes may not be read correctly if the following conditions are met:

- you are using version Beta3j or an earlier version of Amiga UNIX System V Release 4;
- you are reading more than 78 MB from a 120 MB tape;
- and you have changed tapes since booting your system, or opened and closed the door more than once.

Run tapeinit after the tape has been rewound

You do not need **tapeinit** to read small tapes or use the tape drive the first time after booting the system. Nonetheless, it may be easier to get in the habit of running **tapeinit** every time you put a tape in the drive. To use **tapeinit**, insert a tape, wait until it has been rewound (the noise stops and the light turns green), then type **tapeinit**.

Copy tapeinit from floppy disk to your hard disk

Before using **tapeinit**, you must copy it onto your hard disk. Perform the following steps.

- Login as root
- Type: `cd /`
- Type: `cpio -idmuv < /dev/dsk/fd0`

Run tapeinit to read the fourth optional installation file

If you want to install the fourth segment of the installation tape, you must run **tapeinit**. This segment contains the optional public domain source code, and goes past the 78 MB point.

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